Computations of Price Sensitivities After a Financial Market Crash

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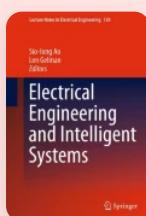
Electrical Engineering and Intelligent Systems

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Abstract

Several new approaches have been recently suggested in the literature for the computation of the price sensitivities of financial assets. However, there is lack of studies that investigate this issue during financial crises. It is a well-known fact that the volatility increases significantly during financial crises. This increased volatility is naturally going to affect the underlying option pricing, the price sensitivities and consequently the management of the underlying risk. It is especially during the crises that the investors require to have access to precise calculations in order to deal with the increased level of risk. This issue is

especially relevant due to the globalization. Thus, to compute the price sensitivities in such a scenario is crucial. This paper is the first attempt to the best knowledge to address the computation of price sensitivities after a financial market crash occurs. Our method to tackle the problem is based on Malliavin calculus.

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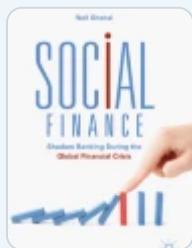
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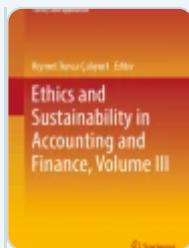
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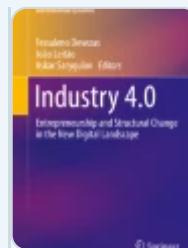
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